

RECLAMATION

Managing Water in the West

CVPIA Section 3406 (b) (10) Red Bluff Diversion Dam Fish Passage



GOALS

- **Goal A - Substantially improve the long-term ability of anadromous fish to reliably pass upstream and downstream of the RBDD.**
- **Goal B - Maintain reliable and cost effective water deliveries.**

Problem

- **RBDD continues to be a barrier to the upstream spawning migrations of salmonids and green sturgeon during gates-in operation.**
- **Also, it has been increasingly more difficult to maintain reliable water deliveries by the current operations at the RBDD.**



Solution

- Reclamation has determined that to fulfill the requirements mandated under CVPIA Section 3406 (b) (10), that “gates-out” operation at RBDD must be extended to improve fish passage.

Environmental Compliance

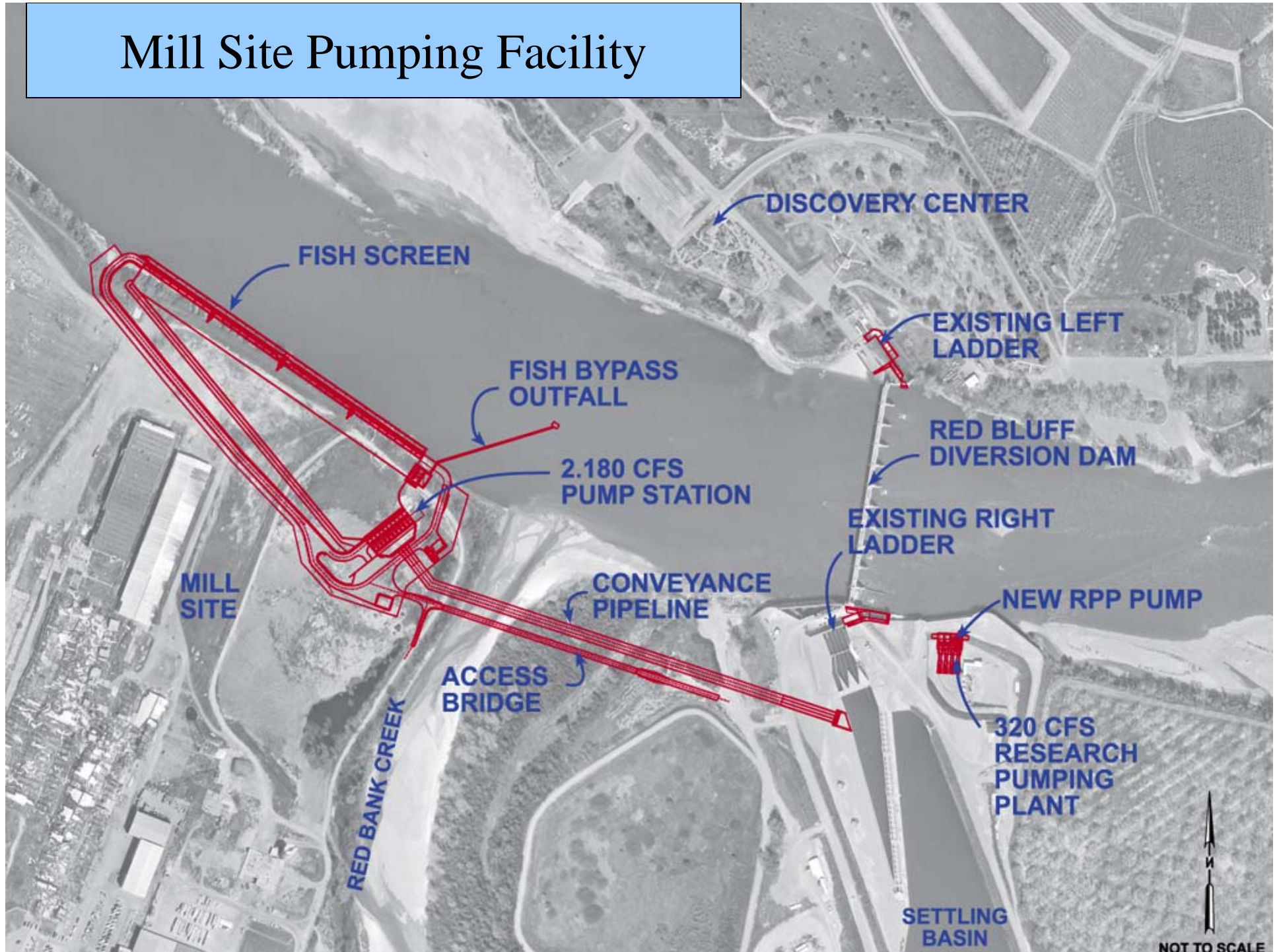
- May 2008, NMFS's biological opinion determined a no jeopardy for the construction of the pump facility.
- Final EIS/EIR completed with Notice of Availability published in Federal Register on May 21, 2008.
- Comments deadline was July 7, 2008.

Record of Decision (ROD)

- Signed on July 16, 2008
- Preferred Alternative: 2-month gates-in operations during July and August.
- Current left- and right-bank ladders would be used.
- A new pumping facility and existing RBRPP would be used in combination.



Mill Site Pumping Facility



Estimated Timeline and Cost

- Acquisition of the Mill Site property currently being pursued.
- Design currently being conducted. Oversight by Project Management Team.
- Construction starts in 2010 with completed project by May 2012. Assuming funding is available.
- Estimated Cost would be 160 – 200 million dollars.

Accomplishments FY 2008

WATER DELIVERIES

**Made without interruption
with an early gates-out
operation.**

**Monitored entrainment during
redirection of water from
Stony Creek into Tehama-
Colusa Canal via Constant
Head Orifice.**



Accomplishments FY 2008

Fish Passage



The background of the slide is a photograph of a river. The water is a murky, greenish-brown color. Several salmon are visible swimming in the water, their silvery scales catching the light. The fish are moving from left to right across the frame. The overall scene is a naturalistic depiction of a river environment.

Genetic Composition of Adult Chinook Salmon During Gates-in Operations

- **Originally funded in 2007 and was continued in 2008.**
- **RBFWO and CDFG personnel collected tissue samples of adult Chinook salmon at east fish ladder.**
- **Genetic analyses conducted by USFWS Abernathy Fish Technology Center. Report for 2007 data published September 2008.**

Green Sturgeon Population Assessment

A cooperative project between Reclamation, RBFWO, and UC-Davis.

- **Ten adult green sturgeon were tagged and released (Reclamation and UC-Davis).**
- **Three spawning habitats were located with multiple eggs being collected (RBFWO).**
- **Monitoring and tracking spatial and temporal movements of tagged fish. (Reclamation and UC-Davis).**
- **Genetic analysis (UC-Davis).**
- **Fifty-four potential holding areas (> 5.0 meters deep) were surveyed between Sundial and Woodson Bridges (All).**

FY 2009 Activities

- **Continue to deliver sufficient water into the Tehama-Colusa and Corning Canals to meet the water districts' demands.**
- **Continue studies of green sturgeon movement patterns, habitat, and passage requirements.**
- **Continue genetic studies of “spring-run” Chinook salmon passing RBDD.**

CVPIA Section 3406 (b) (10)

FY 2008 and FY 2009

BUDGET BREAKDOWN FOR BOTH USFWS and USBR		
TASKS	FY 2008	FY 2009
Program Management	\$100,000	\$100,000
Technical Support	\$500,000	\$370,000
Acquisitions (land, water, and conveyance)	\$1,100,000	\$1,000,000
Outreach and Public Involvement	\$50,000	\$25,000
Planning	\$50,000	\$50,000
Environmental Compliance	\$50,000	\$50,000
Design	\$3,650,000	\$231,000
USFWS Total Costs	\$309,193	\$170,000
USBR Total Costs	\$5,190,807	\$1,656,000*
TOTAL ALL	\$5,500,000	\$1,826,000

*Includes \$1.3 million carry over from FY 2008.

Questions

